

Application Serial Number 10/666,750
Response to Office Action of June 1, 2004

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Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A lamp comprising:
a hermetically sealed, light transmissive envelope;
a tungsten filament within the envelope; and
a mixture of inert gas, a halogen-containing compound, and a silicon-containing compound ~~capable of~~ for gettering oxygen within the envelope, wherein the atomic ratio of silicon to halogen in the mixture is up to from 0.1 to about 0.5.
2. (Cancelled)
3. (Original) The lamp of claim 2, wherein the atomic ratio of silicon to halogen is less than about 0.4.
4. (Original) The lamp of claim 2, wherein the atomic ratio of silicon to halogen is from 0.3 to 0.4.
5. (Original) The lamp of claim 1, wherein the silicon-containing compound is of the general formula $\text{Si}_a\text{H}_{(2a+2-b)}\text{X}_b$, wherein a is an integer greater than zero, b is an integer which has a value between zero and (2a+1), and X is selected from the group consisting of Br, F, Cl, I, and combinations thereof.
6. (Original) The lamp of claim 5, wherein the silicon-containing compound includes a silane.
7. (Currently Amended) The lamp of claim ~~5~~ 6, wherein the silane is selected from the group consisting of SiH_4 , Si_2H_6 , Si_3H_8 , Si_4H_{10} , and combinations thereof.
8. (Currently Amended) The lamp of claim ~~7~~ 5, wherein b is greater than zero and X is Br.
9. (Currently Amended) The lamp of claim 1, wherein the inert gas includes a noble gas selected from the group consisting of xenon, argon, krypton, and combinations thereof.

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10. (Original) The lamp of claim 9, wherein the inert gas further includes nitrogen.
- 11-12. (Cancelled).
13. (Currently amended) A lamp comprising:
 - a hermetically sealed, light transmissive envelope;
 - a tungsten filament within the envelope; and
 - a mixture of inert gas, a halogen-containing compound, and a silicon-containing compound capable of for gettering oxygen within the envelope, wherein the silicon-containing compound is present in a sufficient amount to maintain a lumen per watt efficiency of at least 60% of that of an equivalent lamp formed without a silicon-containing compound.
14. (Original) The lamp of claim 13, wherein the lumen per watt efficiency is at least 80%.
15. (Original) The lamp of claim 13, wherein a lifetime of the lamp is at least 120% of that of the equivalent lamp formed without a silicon-containing compound.
16. (Currently amended) The lamp of claim 13, wherein the silicon-containing compound is of the general formula $\text{Si}_a\text{H}_{(2a+2-b)}\text{X}_b$, wherein a is an integer greater than zero, b is an integer which has a value between zero and (2a+1), and X is selected from the group consisting of Br, F, Cl, I, and combinations thereof.
17. (Original) The lamp of claim 16, wherein the silicon-containing compound includes a silane.
18. (Currently Amended) The lamp of claim 16, wherein the silane is selected from the group consisting of SiH_4 , Si_2H_6 , Si_3H_8 , Si_4H_{10} , and combinations thereof.
19. (New) The lamp of claim 1, wherein the atomic ratio of silicon to halogen is at least about 0.3.
20. (New) A lamp comprising:
 - a light transmissive envelope;
 - at least one filament within the envelope, the at least one filament being formed from tungsten; and
 - a fill gas sealed within the envelope and comprising an inert gas, a halogen-containing compound and a silicon-containing compound for gettering oxygen within the envelope, wherein the silicon-containing compound is present in a sufficient amount to maintain oxygen or an

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oxygen containing compound for promoting the tungsten halogen cycle in the envelope during operation of the lamp.

21. (New) The lamp of claim 20, wherein the atomic ratio of silicon to halogen in the mixture is from 0.1 to about 0.5.